BIOTEC...iOLOGY
SYSTEMS
BRANCH
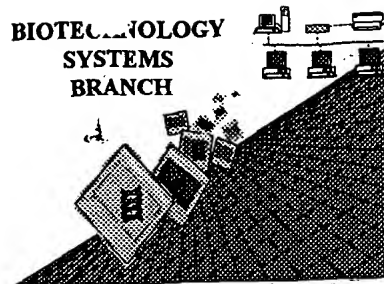
RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/942,588_

Source: _OIPE_

Date Processed by STIC: _9/18/2001_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov **or phone 703-306-4119 (R. Wax)**
PATENTIN 3.0 e-mail help: patin3help@uspto.gov **or phone 703-306-4119 (R. Wax)**

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).
Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker

OIPE

RAW SEQUENCE LISTING   DATE: 09/18/2001
PATENT APPLICATION: US/09/942,588   TIME: 14:56:13

Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

Does Not Comply
Corrected Diskette Needed

```
       2 <110> APPLICANT: Canon INC.
W-->   3 <120> TITLE OF INVENTION: Screening method for gene variation
W-->   4 <130> FILE REFERENCE: CFO 15717
C-->   5 <140> CURRENT APPLICATION NUMBER: US/09/942,588
C-->   5 <141> CURRENT FILING DATE: 2001-08-31
       5 <150> PRIOR APPLICATION NUMBER: JP 2000-263396
W-->   6 <160> NUMBER OF SEQ ID: 67
```

→<151> insert

pp 1-4

This numeric identification is
necessary since <150 is shown

ERRORED SEQUENCES

```
W-->   7 <210> SEQ ID NO: 1
       8 <211> LENGTH: 18
       9 <212> TYPE: DNA
      10 <213> ORGANISM: Artificial sequence
W-->  11 <220> FEATURE:
      12 <223> OTHER INFORMATION: Sample oligonucleotide
W-->  13 <400> SEQUENCE: 1
E-->  14 gatgggactc aagttcat
      15 <210> SEQ ID NO: 2
      16 <211> LENGTH: 18
      17 <212> TYPE: DNA
      18 <213> ORGANISM: Artificial sequence
W-->  19 <220> FEATURE:
      20 <223> OTHER INFORMATION: Sample oligonucleotide
W-->  21 <400> SEQUENCE: 2
E-->  22 gatgggactc aggttcat
      23 <210> SEQ ID NO: 3
      24 <211> LENGTH: 18
      25 <212> TYPE: DNA
      26 <213> ORGANISM: Artificial sequence
W-->  27 <220> FEATURE:
      28 <223> OTHER INFORMATION: Sample oligonucleotide
W-->  29 <400> SEQUENCE: 3
E-->  30 gatgggactc acgttcat
      31 <210> SEQ ID NO: 4
      32 <211> LENGTH: 18
      33 <212> TYPE: DNA
      34 <213> ORGANISM: Artificial sequence
W-->  35 <220> FEATURE:
      36 <223> OTHER INFORMATION: Sample oligonucleotide
W-->  37 <400> SEQUENCE: 4
E-->  38 gatgggactc atgttcat
      39 <210> SEQ ID NO: 5
      40 <211> LENGTH: 18
      41 <212> TYPE: DNA
      42 <213> ORGANISM: Artificial sequence
```

18← insert cumulative base total
at right margin of each line

same error

same

same

RAW SEQUENCE LISTING   DATE: 09/18/2001
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Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

```
W--> 43 <220> FEATURE:
     44 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 45 <400> SEQUENCE: 5
E--> 46 gatgggactc gagttcat                          same
     47 <210> SEQ ID NO: 6
     48 <211> LENGTH: 18
     49 <212> TYPE: DNA
     50 <213> ORGANISM: Artificial sequence
W--> 51 <220> FEATURE:
     52 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 53 <400> SEQUENCE: 6
E--> 54 gatgggactcgggtcat
     55 <210> SEQ ID NO: 7
     56 <211> LENGTH: 18
     57 <212> TYPE: DNA
     58 <213> ORGANISM: Artificial sequence
W--> 59 <220> FEATURE:
     60 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 61 <400> SEQUENCE: 7
E--> 62 gatgggactc gcgttcat                          same
     63 <210> SEQ ID NO: 8
     64 <211> LENGTH: 18
     65 <212> TYPE: DNA
     66 <213> ORGANISM: Artificial sequence
W--> 67 <220> FEATURE:
     68 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 69 <400> SEQUENCE: 8
E--> 70 gatgggactc gtgttcat                          same
     71 <210> SEQ ID NO: 9
     72 <211> LENGTH: 18
     73 <212> TYPE: DNA
     74 <213> ORGANISM: Artificial sequence
W--> 75 <220> FEATURE:
     76 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 77 <400> SEQUENCE: 9
E--> 78 gatgggactc cagttcat                          same
     79 <210> SEQ ID NO: 10
     80 <211> LENGTH: 18
     81 <212> TYPE: DNA
     82 <213> ORGANISM: Artificial sequence
W--> 83 <220> FEATURE:
     84 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 85 <400> SEQUENCE: 10
E--> 86 gatgggactc cggttcat                          same
     87 <210> SEQ ID NO: 11
     88 <211> LENGTH: 18
     89 <212> TYPE: DNA
     90 <213> ORGANISM: Artificial sequence
W--> 91 <220> FEATURE:
```

[handwritten annotations]: insert a space — group all non-coding bases into 10's, with a space between groups; insert cumulative base total at right margin

```
         92 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 93 <400> SEQUENCE: 11                  same
E--> 94 gatgggactc ccgttcat
         95 <210> SEQ ID NO: 12
         96 <211> LENGTH: 18
         97 <212> TYPE: DNA
         98 <213> ORGANISM: Artificial sequence
W--> 99 <220> FEATURE:
        100 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 101 <400> SEQUENCE: 12                 same
E--> 102 gatgggactc ctgttcat
        103 <210> SEQ ID NO: 13
        104 <211> LENGTH: 18
        105 <212> TYPE: DNA
        106 <213> ORGANISM: Artificial sequence
W--> 107 <220> FEATURE:
        108 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 109 <400> SEQUENCE: 13                 same
E--> 110 gatgggactc tagttcat
        111 <210> SEQ ID NO: 14
        112 <211> LENGTH: 18
        113 <212> TYPE: DNA
        114 <213> ORGANISM: Artificial sequence
W--> 115 <220> FEATURE:
        116 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 117 <400> SEQUENCE: 14                 same
E--> 118 gatgggactc tggttcat
        119 <210> SEQ ID NO: 15
        120 <211> LENGTH: 18
        121 <212> TYPE: DNA
        122 <213> ORGANISM: Artificial sequence
W--> 123 <220> FEATURE:
        124 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 125 <400> SEQUENCE: 15                 same
E--> 126 gatgggactc tcgttcat
        127 <210> SEQ ID NO: 16
        128 <211> LENGTH: 18
        129 <212> TYPE: DNA
        130 <213> ORGANISM: Artificial sequence
W--> 131 <220> FEATURE:
        132 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 133 <400> SEQUENCE: 16                 same
E--> 134 gatgggactc ttgttcat
        135 <210> SEQ ID NO: 17
        136 <211> LENGTH: 18
        137 <212> TYPE: DNA
        138 <213> ORGANISM: Artificial sequence
W--> 139 <220> FEATURE:
        140 <223> OTHER INFORMATION: Sample oligonucleotide
```

RAW SEQUENCE LISTING   DATE: 09/18/2001
PATENT APPLICATION: US/09/942,588   TIME: 14:56:13

Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

```
W--> 141 <400> SEQUENCE: 17
E--> 142 gatggggctc aagttcat          same
     143 <210> SEQ ID NO: 18
     144 <211> LENGTH: 18
     145 <212> TYPE: DNA
     146 <213> ORGANISM: Artificial sequence
W--> 147 <220> FEATURE:
     148 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 149 <400> SEQUENCE: 18
E--> 150 gatggggctc aggttcat          same
     151 <210> SEQ ID NO: 19
     152 <211> LENGTH: 18
     153 <212> TYPE: DNA
     154 <213> ORGANISM: Artificial sequence
W--> 155 <220> FEATURE:
     156 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 157 <400> SEQUENCE: 19
E--> 158 gatggggctc acgttcat          same
     159 <210> SEQ ID NO: 20
     160 <211> LENGTH: 18
     161 <212> TYPE: DNA
     162 <213> ORGANISM: Artificial sequence
W--> 163 <220> FEATURE:
     164 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 165 <400> SEQUENCE: 20
E--> 166 gatggggctc atgttcat          same
     167 <210> SEQ ID NO: 21
     168 <211> LENGTH: 18
     169 <212> TYPE: DNA
     170 <213> ORGANISM: Artificial sequence
W--> 171 <220> FEATURE:
     172 <223> OTHER INFORMATION: Sample oligonucleotide
W--> 173 <400> SEQUENCE: 21
E--> 174 gatggggctc gagttcat          same
```

The types of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/942,588

DATE: 09/18/2001
TIME: 14:56:14

Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

```
L:3  M:283 W: Missing Blank Line separator, <120> field identifier
L:4  M:283 W: Missing Blank Line separator, <130> field identifier
L:5  M:270 C: Current Application Number differs, Replaced Current Application No
L:5  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:6  M:283 W: Missing Blank Line separator, <160> field identifier
L:7  M:283 W: Missing Blank Line separator, <210> field identifier
L:11 M:283 W: Missing Blank Line separator, <220> field identifier
L:13 M:283 W: Missing Blank Line separator, <400> field identifier
L:14 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:1
L:19 M:283 W: Missing Blank Line separator, <220> field identifier
L:21 M:283 W: Missing Blank Line separator, <400> field identifier
L:22 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:2
L:27 M:283 W: Missing Blank Line separator, <220> field identifier
L:29 M:283 W: Missing Blank Line separator, <400> field identifier
L:30 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:3
L:35 M:283 W: Missing Blank Line separator, <220> field identifier
L:37 M:283 W: Missing Blank Line separator, <400> field identifier
L:38 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:4
L:43 M:283 W: Missing Blank Line separator, <220> field identifier
L:45 M:283 W: Missing Blank Line separator, <400> field identifier
L:46 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:5
L:51 M:283 W: Missing Blank Line separator, <220> field identifier
L:53 M:283 W: Missing Blank Line separator, <400> field identifier
L:54 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:17 SEQ:6
L:54 M:252 E: No. of Seq. differs, <211>LENGTH:Input:18 Found:17 SEQ:6
L:59 M:283 W: Missing Blank Line separator, <220> field identifier
L:61 M:283 W: Missing Blank Line separator, <400> field identifier
L:62 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:7
L:67 M:283 W: Missing Blank Line separator, <220> field identifier
L:69 M:283 W: Missing Blank Line separator, <400> field identifier
L:70 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:8
L:75 M:283 W: Missing Blank Line separator, <220> field identifier
L:77 M:283 W: Missing Blank Line separator, <400> field identifier
L:78 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:9
L:83 M:283 W: Missing Blank Line separator, <220> field identifier
L:85 M:283 W: Missing Blank Line separator, <400> field identifier
L:86 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:10
L:91 M:283 W: Missing Blank Line separator, <220> field identifier
L:93 M:283 W: Missing Blank Line separator, <400> field identifier
L:94 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:11
L:99 M:283 W: Missing Blank Line separator, <220> field identifier
L:101 M:283 W: Missing Blank Line separator, <400> field identifier
L:102 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:12
L:107 M:283 W: Missing Blank Line separator, <220> field identifier
L:109 M:283 W: Missing Blank Line separator, <400> field identifier
L:110 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:13
L:115 M:283 W: Missing Blank Line separator, <220> field identifier
L:117 M:283 W: Missing Blank Line separator, <400> field identifier
```

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Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

```
L:118 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:14
L:123 M:283 W: Missing Blank Line separator, <220> field identifier
L:125 M:283 W: Missing Blank Line separator, <400> field identifier
L:126 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:15
L:131 M:283 W: Missing Blank Line separator, <220> field identifier
L:133 M:283 W: Missing Blank Line separator, <400> field identifier
L:134 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:16
L:139 M:283 W: Missing Blank Line separator, <220> field identifier
L:141 M:283 W: Missing Blank Line separator, <400> field identifier
L:142 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:17
L:147 M:283 W: Missing Blank Line separator, <220> field identifier
L:149 M:283 W: Missing Blank Line separator, <400> field identifier
L:150 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:18
L:155 M:283 W: Missing Blank Line separator, <220> field identifier
L:157 M:283 W: Missing Blank Line separator, <400> field identifier
L:158 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:19
L:163 M:283 W: Missing Blank Line separator, <220> field identifier
L:165 M:283 W: Missing Blank Line separator, <400> field identifier
L:166 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:20
L:171 M:283 W: Missing Blank Line separator, <220> field identifier
L:173 M:283 W: Missing Blank Line separator, <400> field identifier
L:174 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:21
L:179 M:283 W: Missing Blank Line separator, <220> field identifier
L:181 M:283 W: Missing Blank Line separator, <400> field identifier
L:182 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:22
L:187 M:283 W: Missing Blank Line separator, <220> field identifier
L:189 M:283 W: Missing Blank Line separator, <400> field identifier
L:190 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:23
L:198 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:24
L:206 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:25
L:214 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:26
L:222 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:27
L:230 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:28
L:238 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:29
L:246 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:30
L:254 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:31
L:262 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:32
L:270 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:33
L:278 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:34
L:286 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:35
L:294 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:36
L:302 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:37
L:310 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:38
L:318 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:39
L:326 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:40
L:334 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:41
L:342 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:42
L:350 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:43
L:358 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:44
```

VERIFICATION SUMMARY   DATE: 09/18/2001
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Input Set : A:\PTO_VSK.txt
Output Set: N:\CRF3\09182001\I942588.raw

L:366 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:45
L:374 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:46
L:382 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:47
L:390 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:48
L:398 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:49
L:406 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:18 SEQ:50